DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Permitting and Compliance Division
Water Protection Bureau

Name of Project: One Horse Estates

Type of Project: Subsurface Disposal – domestic wastewater

Location of Project: T 10N, R 20W, Section 14 and 15, Ravalli County

City/Town: Florence

County: Ravalli

Description of Project:
One Horse Acres, LLC proposes to develop 70 single-family homes south of Florence, MT. The project will treat wastewater through an AdvanTex AX10,0 which provides treatment by recirculating wastewater through a textile filter. The average design flow of the system is 14,000 gallons per day (gpd) and the maximum is 21,000 gpd. Effluent limits were derived using the maximum discharge rate. Treated wastewater will be pressured dosed to a single drainfield, an elevated sand mound (Outfall 001). The drainfield is located hydraulically downgradient from most homes. A standard, 500 foot ground water mixing zone was requested by the applicant.

Agency Action and Applicable Regulations: The proposed action is to issue an individual MGWPCS permit that has effluent limits and effluent monitoring requirements. The permit is issued under the authority of the Montana Water Quality Act 75-5-101 *et seq.* Montana Ground Water Pollution Control System Administrative Rules of Montana (ARM) 17.30.1001-1070, and Montana Numeric Water Quality Standards in the Department Circular DEQ-7 (February 2008).

The subdivision is pending approval under the Montana Sanitation Subdivision Act (EQ-#06-2387).

Summary of Issues: The purpose of this action is to regulate the discharges of pollutants to state waters from the regulated facility. Issuance of an individual permit will require the facility to implement design and management practices to prevent pollution and degradation of groundwater.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] The proposed discharge will be to an unconfined shallow aquifer with relatively high hydraulic conductivity. The local ground water is relatively shallow based on local wells that indicate ground water is 15-20 feet below ground surface (GWIC, 2008). The applicant is required to use an elevated sand mound to increase the unsaturated zone depth to facilitate continued treatment after disposal. Test pits dug on site indicate a loam soil (silty- to sandy- to gravelly-loams) beneath the proposed drainfield. For the total phosphorus nonsignificance determination, use of loam soils are assumed to have higher adsorption sites.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] Wells used for domestic use are located downgradient of the discharge approximately 1,000 feet or greater. Effluent limits have been established to protect the receiving water quality and satisfy the nonsignificance criteria
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] Once constructed, the treatment facility will not produce any particulates. Airborne dust may be present during construction activities.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] No significant impacts have been identified. Past land use has been for growing hay.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No significant impacts have been identified. A database search from the Natural Heritage Program identifies Lewis's Woodpecker and the Bald Eagle as living in the area. Lewis's Woodpecker has a state ranking of "S2B", which indicates the species is "risk because of very limited and/or declining numbers, range, and/or habitat, making it vulnerable to global extinction or extirpation in the state". The "B" indicates breeding pairs. The bald Eagle is listed as "threatened" (USFS) and has "special status" by the BLM. Occurrence/presence of the Westslope Cutthroat throat exists in One Horse Creek upgradient of the subdivision. The Cutthroat has a state rank of "S2" and is listed as "sensitive" by both the USFS and BLM. Based on information submitted by the applicant and published by the Montana Bureau of Mines and Geology, the ground water flow direction will not intercept One Horse Creek.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] No significant impacts have been identified. The property was used for many years for hay cultivation, and for the last 10 years, the land has not been used for anything. Two vascular plant species were identified by the Natural Herritage Program as orruing near the proposed subdivision. These are the Scalepod and Pointed Broom Sedge. The Scalepod is ranked with the greatest state rank of "S1", which mean its considered at "high risk because of extremely limited and/or rapidly declining numbers, range, and/or habitat, making it highly vulnerable extirpation in the state". Its occurance in the area has been recorded one section to the west of the proposed subdivision. The Pointed Broom Sedge has been indetificed in one section south of the proposed subdivision. Its state rank is S1/S2

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	(refer to above) and as "sensitive" by the USFS.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] No significant impacts have been identified. A State Historical Preservation Database search showed that no buildings have been registered in the proposed subdivision sections.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The subdivision is located immediately west of Hwy 93 and is visible. It will occupy an area surrounded by other subdivisions. Residential lighting certainly be added and apparent in a former rural, agricultural area.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[N] No significant impacts have been identified during EA preparation. Hydraulic conductivity values indicate a rapid rate of groundwater movement. Potential for ground water depletion is minimal. Impacts to agricultural resources will be limited to the foot print of the proposed subdivision property boundaries. The proposed action does not authorize water rights.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] Other subdivisions are located near and around the project. Future subdivisions and infill could occur and stress ground water quality. Ground water monitoring at the edge of the mixing zone is required and the permit requires corrective actions should an exceedance of a ground water standard or trigger value occur.

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] The centralized treatment facility will treat pollutants effectively. No significant impacts have been identified during EA preparation.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No significant impacts have been identified. The proposed activity is changing the landuse in a historically agricultural area. The property is located in an area that has been fragmented with home development and has not recently been used for grazing or farming.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No significant impacts have been identified. During build-out, local contractors will build homes.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No significant impacts have been identified. The tax base and revenues will likely increase as a result of the proposed activities.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] Roads will be constructed in the subdivision to funnel residents in and out. A US Highway is the major north/south arterial that is immediately adjacent to the proposed subdivision.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] The Ravalli County Growth Policy was repealed by voters on November 2, 2008. No significant impacts have been identified.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No significant impacts have been identified. The proposed subdivision is on private property that does not have recreational areas.

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No significant impacts have been identified.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] The Town of Florence is becoming a bedroom community to the City of Missoula. The subdivision is an area where housing developments are common. The addition of this subdivision will add more single family residents.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No significant impacts have been identified.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No significant impacts have been identified.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] No significant impacts have been identified.
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[N] No significant impacts have been identified.
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[N] No significant impacts have been identified.

23. Description of and Impacts of other Alternatives Considered:

A. No Action: Under the 'No Action' alternative the Department would not issue an individual ground water discharge permit under the Montana Ground Water Pollution Control System administrative rules. The proposed action will have environmental benefits compared to leaving the facility unpermitted.

B. Approval with modification: The Department has not identified any necessary modifications to grant approval.

24. Summary of Magnitude and Significance of Potential Impacts: Impacts were assessed with the assumption that the permittee will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. In preparing permit effluent limits, the Department has taken steps to ensure that beneficial uses of the receiving water are preserved and exceedance of water quality standards will not occur, which includes that the discharge will remain "nonsignificant", as required by ARM 17.30.subchapter 7 "Nondegradation of Water Quality". The Department provides assistance to applicants in understanding and implementing the requirements of the permit and conducts periodic inspections of permitted facilities, where potential problems with design or management practices might be identified. If violations of the permit do occur, the Department will take appropriate action under the water quality act (Section 75-5-617, MCA). Enforcement sanctions for violations of the permit include injunctions, civil and administrative penalties, and cleanup orders.

25. Cumulative Effects: The issuance of this individual MGWPCS discharge permit would not have cumulative effects because the permit prohibits pollution and degradation of state waters.

26. Preferred Action Alternative and Rationale: The preferred action is to issue the individual MGWPCS discharge permit. This action is preferred because the permit provides a regulatory mechanism for protecting ground water quality by applying control technology to the source of domestic wastewater.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

Rationale for Recommendation:

27. Public Involvement: A 30-day public comment period will be from January 26 through February 25, 2009. A public hearing is not scheduled.

28. Persons and agencies consulted in the preparation of this analysis:

Damon Murdo, Cultural Records Manager, State Historic Preservation Office
Montana Bureau of Mines and Geology
Montana Natural Heritage Program
Natural Resource Information System, Montana State Library

EA Checklist Prepared By:

Rebecca Ridenour January 15, 2009

Approved By:

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Jenny Chambers, Chief Date
Water Protection Bureau